

What is claimed is:

1. A light-emitting device comprising an anode, an organic compound layer containing at least one light-emitting layer, and a cathode,

5 wherein the at least one light-emitting layer contains two or more different kinds of light-emitting materials, and at least one of the two or more light-emitting materials is an orthometallated complex.

10 2. The light-emitting device as described in claim 1, wherein the two or more different kinds of light-emitting materials are contained in the same light-emitting layer.

15 3. The light-emitting device as described in claim 1, wherein the two or more different light-emitting materials are contained in different light-emitting layers.

20 4. The light-emitting device as claimed in claim 1, wherein the at least one light-emitting layer is a doped light-emitting layer in which a light-emitting material is dispersed in a host material, or a non-doped light-emitting layer which contains a light-emitting material as a main component.

25 5. The light-emitting device as claimed in claim 1,

wherein the orthometallated complex contains a metal selected from Ir, Pd and Pt.

6. The light-emitting device as claimed in claim 1,
5 wherein the at least one light-emitting layer contains the orthometallated complex in an amount of 0.1 mass% to 50 mass%.

7. The light-emitting device as claimed in claim 1,
10 wherein the at least one light-emitting layer contains at least one compound selected from the group consisting of benzoxazole derivatives, benzimidazole derivatives, benzothiazole derivatives, styrylbenzene derivatives, polyphenyl derivatives, diphenylbutadiene derivatives, tetraphenylbutadiene derivatives, naphthalimide derivatives,
15 coumarin derivatives, perylene derivatives, oxadiazole derivatives, aldazine derivatives, pyralidine derivatives, pyran derivatives, pyrene derivatives, cyclopentadiene derivatives, bis-styrylanthracene derivatives, quinacridone derivatives, pyrrolopyridine derivatives,
20 thiadiazolopyridine derivatives, styrylamine derivatives, aromatic dimethylidene compounds, metal or rare earth complexes of 8-quinolinol derivatives, polythiophene derivatives, polyphenylene derivatives, polyphenylenevinylene derivatives and polyfluorene derivatives.

25

8. The light-emitting device as claimed in claim 1,
wherein the at least one light-emitting layer contains a host
material selected from the group consisting of carbazole
derivatives, oxazole derivatives, oxadiazole derivatives,
5 imidazole derivatives, polyaryllalkane derivatives, pyrazoline
derivatives, pyrazolone derivatives, phenylenediamine
derivatives, arylamine derivatives, amino-substituted
chalcone derivative, styrylanthracene derivatives, fluorenone
derivatives, hydrazone derivatives, stilbene derivatives,
10 silazane derivatives, aromatic tertiary amine compounds,
styrylamine compounds, aromatic dimethyldiene compounds,
porphyrin compounds, anthraquinodimethane derivatives,
anthrone derivatives, diphenylquinone derivatives, thiopyran
dioxide derivatives, carbodiimide derivatives,
15 fluorenylidene methane derivatives, distyrylpyradine
derivatives, tetracarboxylic acid anhydrides of aromatic rings,
tetracarboxylic acid anhydrides of aromatic rings,
phthalocyanine derivatives, metal complexes of 8-quinolinol
derivatives, metal phthalocyanine, metal complexes containing
20 as a ligand benzoxazole or benzothiazole, polysilane compounds,
electrically conductive high molecular oligomers, selected
from the group consisting of poly(N-vinylcarbazole)
derivatives, aniline copolymers, thiophene oligomer and
polythiophene, polythiophene derivatives, polyphenylene
25 derivatives, polyphenylene vinylene derivatives, and

Al
Amel
polyfluorene derivatives.

9. The light-emitting device as claimed in claim 1, which emits a white light.

Pat
42
10. The light-emitting device as claimed in claim 1, wherein the two or more different kinds of light-emitting materials are three-kinds of light emitting materials that includes a blue light-emitting material having a light-emitting wavelength peak in the range of 400 to 500 nm, a green light-emitting material having a light-emitting wavelength peak in the range of 500 to 570 nm, and a red light-emitting material having a light-emitting wavelength peak in the range of 580 to 570 nm.

15

11. The light-emitting device as claimed as in claim 1, wherein the at least one light-emitting material includes a styrylbenzene derivative as a blue light-emitting material, an orthometallated complex of tris(2-phenylpyridine) iridium complex as a green light-emitting material, and a pyran derivative as a red light-emitting material.

12. The light-emitting device as claimed in claim 1, which further comprises a transparent substrate selected from the group consisting of glass, a polycarbonate sheet, a polyether

sulfone sheet, a polyester sheet and a poly(chlorotrifluoroethylene) sheet.

13. The light-emitting device as claimed in claim 1,
5 wherein the organic compound layer has a total thickness of 0.05 μm to 0.3 μm

14. The light-emitting device as claimed in claim 1,
wherein the organic compound layer has at least one layer
10 prepared by a wet method.

15. The light-emitting device as claimed in claim 1,
wherein the organic compound layer has at least one layer
prepared by a dry method.

15